

UNITED STATES PATENT APPLICATION

For

TWO-TIER EMAIL FILTERING

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TWO-TIER EMAIL FILTERING

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is related to and claims priority to U.S. Provisional Application Serial No. 60/500,981, filed September 8, 2003, entitled "Targeted Email Promotion and Two-Tier Filtering," and U.S. Provisional Application Serial No. 60/549,638, filed March 3, 2004, entitled "Targeted Email Promotion and Two-Tier Filtering System and Method," attorney docket no. 68983-012. Both of these provisional applications are incorporated herein by reference.

BACKGROUND

[0002] *Field*

[0003] This application relates to email promotional messages and to email filtering.

[0004] *Background*

[0005] Businesses are always in search of effective and cost efficient advertising. To this end, spam has been used by several companies.

[0006] Spam, however, is a growing problem for consumers and companies. Spam can cause a variety of problems, including lost time and productivity, increased exposure to security breaches, and the delivery of unwanted and sometimes harmful content. Efforts to delete unwanted spam sometimes result in the deletion of desired emails. The growth of spam and its associated problems are approaching levels that threaten the utility of the email communication system.

[0007] Increased dislike of spam and the problems it may cause, decreased attention given to the contents of spam, and growing legislation against spam are all causing the attractiveness and effectiveness of this form of advertising to diminish.

SUMMARY

[0008] An email-based promotional message delivery system may include a sender profile database configured to store a profile of each of a plurality of potential email senders; a promotional message database configured to store a plurality of promotional messages and, for each, a profile of preferred recipients of the message; and a processing system. The processing system may be configured to receive a

plurality of outgoing emails from a plurality of different senders, each email containing information identifying the sender and at least one recipient. The processing system may be configured in connection with each received email to locate the profile of the sender in the sender profile database; locate at least one promotional message in the promotional message database that has a profile that is appropriate for the profile of the sender; add the at least one located promotional message to the email; and direct the augmented email to the at least one recipient of the email.

[0009] An email address database may be configured to be accessed electronically by an email application and configured to store and deliver information identifying a plurality of potential email recipients and, in connection with each, information about his or her income, vocation, race, number of children and/or hobbies.

[0010] An email-based promotional message delivery system may include a recipient profile database configured to store a profile of each of a plurality of potential email recipients; a promotional message database configured to store a plurality of promotional messages and, for each, a profile of preferred recipients of the message; and a processing system. The processing system may be configured to receive recipient profiles from email address databases maintained by a plurality of email senders and store the recipient profiles in the recipient profile database. The processing system may be configured to receive an outgoing email from an email sender, the email containing information identifying at least one intended recipient of the email; locate the profile of the intended recipient in the recipient profile database; locate at least one promotional message in the promotional message database that has a profile that is appropriate for the located profile of the at least one intended recipient; add the at least one located promotional message to the email; and direct the augmented email to the at least one intended recipient.

[0011] An email-based system may include a recipient database configured to store information identifying recipients that have clicked links embedded in their email messages and information identifying the links that the recipients have clicked, as well as a processing system. The processing system may be configured to receive reports about recipients that have clicked links embedded in their email messages and update the recipient database to reflect information in the reports.

[0012] An email-based system may include a recipient database configured to store information identifying recipients that have clicked links embedded in their email messages and a profile of each recipient, as well as a processing system. The processing system may be configured to receive reports about recipients that have clicked links embedded in their email messages and update the recipient profiles in the recipient database based on the reports.

[0013] An email-based modification system may include a sender database configured to store information about a plurality of email senders, including information about the number of emails from each sender that the modification system has modified, and a processing system. The processing system may be configured to receive a plurality of emails from the plurality of senders, each email containing information identifying the sender and at least one recipient. The processing system may be configured in connection with each received email to modify the email; direct the modified email to the at least one recipient; and update the information in the sender database about the number of emails from the sender to reflect that another email has been modified.

[0014] A spam blocking system may include an approved sender database configured to store information identifying a plurality of senders that have been approved to send emails to a recipient, as well as a processing system. The processing system may be configured to receive an incoming email from a sender to the recipient; determine whether information identifying the sender is in the approved sender database; if information identifying the sender is not in the approved sender database, direct the sender to take a test configured to only be passable with input from an individual; determine whether the sender has passed the test; and if the sender has passed the test, place information identifying the sender in the approved sender database.

[0015] The test may be to enter characters appearing against a partially-obscuring background on a webpage.

[0016] The processing system may be configured to ask the recipient whether to place information identifying the sender in the approved sender database before placing the information identifying the sender in the approved sender database.

[0017] The processing system may be configured to deliver the email to the recipient if the sender passes the test.

[0018] The processing system may be configured to redirect or block the email from reaching the recipient if the sender does not pass the test.

[0019] The processing system may be configured to deliver the email to the recipient if information identifying the sender is in the approved sender database.

[0020] The spam blocking system may include a blocked sender database configured to store information identifying a plurality of senders that are to be blocked from sending emails to the recipient. The processing system may be configured to determine whether information identifying the sender is in the blocked sender database; and if information identifying the sender is in the blocked sender database, not to direct the sender to take the test and to redirect or block the email from reaching the recipient.

[0021] Processes may be performed to implement one or more of the functions discussed above. Computer-readable storage media may contain computer-readable instructions which cause a computing system to implement one or more of these processes when installed in the computing system.

[0022] These, as well as other objects, features and benefits will now become clear from review of the following detailed description of illustrative embodiments and the accompanying drawings.

BRIEF DESCRIPTION OF DRAWINGS

[0023] FIG. 1 illustrates one embodiment of a targeted email promotion system with two-tier filtering.

[0024] FIG. 2 illustrates one embodiment of a record in the email address database illustrated in FIG. 1.

[0025] FIG. 3 illustrates one embodiment of the sender profile database illustrated in FIG. 1.

[0026] FIG. 4 illustrates one embodiment of the recipient profile database illustrated in FIG. 1.

[0027] FIG. 5 illustrates one embodiment of the promotional message database illustrated in FIG. 1.

[0028] FIG. 6 illustrates one embodiment of the sender database illustrated in FIG. 1.

[0029] FIG. 7 illustrates one embodiment of the recipient database illustrated in FIG. 1.

[0030] Fig 8 illustrates one embodiment of a targeted email promotion process.

[0031] Fig 9 illustrates another embodiment of a targeted email promotion process.

[0032] FIG. 10 illustrates one embodiment of a promotional accounting process.

[0033] FIG. 11 illustrates one embodiment of an automated recipient profile development process.

[0034] FIG. 12 illustrates one embodiment of a two-tier email filtering process.

[0035] FIG. 13 illustrates one embodiment of the web page test presented by the test website illustrated in FIG. 1.

DETAILED DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS

[0036] Illustrative embodiments of structure will be described first, followed by illustrative embodiments of processes that these or other structures may perform. The description of these structures and processes are for illustrative purposes only. Other structures and processes may be created and performed that include different combinations of components or steps, including combinations with more, less and/or different components or steps.

[0037] FIG. 1 illustrates one embodiment of a targeted email system with two-tier filtering.

[0038] As shown in FIG. 1, a plurality of email senders/recipient systems, such as email senders/recipient systems **101**, **103**, **105**, **107** and **109**, may be connected to a networked communication system, such as the Internet **111**, along with a promotional message augmentation system **113**. Some of the email senders/recipient systems may be subscribers to a product or service provided by the promotional message augmentation system **113**, such as the email senders/recipient systems **101** and **103**;

while other email senders/recipient systems may not be subscribers, such as the email senders/recipient systems **105**, **107** and **109**.

[0039] Email sender/recipient system **101** may consist of a single computer or multiple computers configured to send and/or receive email. It may include a processing system **115**, which may include an operating system **117** and an email client **119**. The operating system **117** may be Windows, Unix, Linux, Netware or any other type of operating system. The email client **119** may be Outlook, Outlook Express, Eudora or any other type of email client. The various components of the email sender/recipient system **101** may or may not be at the same location.

[0040] Email senders/recipient systems that are subscribers, such as email senders/recipient system **101**, may additionally include custom software, such as custom software **121**. The custom software **121** may configure the email client **119** in various ways, including to designate email server **145** as the server which should handle incoming and/or outgoing email. The custom software may be configured to cooperate with the other components of the processing system **115** to perform one or more of the operations described herein. The custom software **121** may be written in accordance with well known programming techniques.

[0041] Email sender/recipient systems that are subscribers, such as email sender/recipient system **101**, may include additional components, such as an email address database **123**, an approved sender database **125** and/or a blocked sender database **127**.

[0042] FIG. 2 illustrates one embodiment of a record in the email address database **123** illustrated in FIG. 1. As shown in FIG. 2, each record may include the name **201** of a recipient to whom the email sender/recipient system may send an email, his or her email address **203**, and one or more fields of information that profile the recipient. The profile fields may include demographic information about the recipient, such as income **205**, vocation **207**, race **209**, religion **211**, sex **213**, marital status **215** and/or number of children **217**. Additional, a lesser number, and/or other profile fields may be used instead.

[0043] The approved sender database **125** may contain information identifying persons whom have been authorized to deliver emails to the sender/recipient system **101**. Information in the approved sender database **125** may be entered by the user. The information may be imported from one or more contact databases. This may be done automatically upon creation of the database with the aid of the custom software **121**.

[0044] The blocked sender database **127** may include information identifying persons whom have been blocked from delivering emails to the email sender/recipient system **101**. The processing system **115** may be configured to completely block emails from senders listed in the blocked sender database **127** or merely to redirect them to a folder or other area that is segregated from other emails.

[0045] The other Email sender/recipient systems may be configured in the same or in different ways. Email sender/recipient systems that are not subscribes may be configured to point to email servers other than email server **145** to process their incoming and/or outgoing emails.

[0046] Although the Internet **111** is illustrated in FIG. 1 as being part of the backbone of the network communication system between the email senders/recipient systems **101**, **103**, **105**, **107** and **109** and the promotional message augmentation system **113**, other types of networked communications systems may be used in addition or instead, including LANs, WANs, wired systems and wireless systems. In this regard, the entire targeted email promotion system with two-tier filtering that is illustrated in FIG. 1 may be housed within a single organization and used exclusively by its members to deliver promotional messages and/or to block spam, all as will be explained in more detail below.

[0047] The promotional message augmentation system **113** may include a sender profile database **131**, a recipient profile database **133**, a sender database **137**, a promotional message database **135**, a recipient database **139** and a processing system **141**. The processing system **141** may include an operating system **143**, an email server **145** and custom software **147**.

[0048] The operating system **143** may be any type of operating system, such as Windows, Unix, Linux or Netware. The email server **145** may be configured to send and/or receive email on behalf of subscribers to the promotional message augmentation system **113**, such as on behalf of the email senders/recipient systems **101** and **103**. Traditional technologies, such as Pop 3 and Exchange, may be used, as well as other formats. The custom software **147** may be configured to cause the processing system **141** to perform one or more of the operations described herein in conjunction with the operating system **143** and, when appropriate, the email server **145**.

[0049] FIG. 3 illustrates one embodiment of the sender profile database **131** illustrated in FIG. 1. The sender profile database **131** may be configured to store a profile **301** of each of a plurality of potential email senders **303** that may use email server **145** to send their outgoing emails. These may include email senders that have subscribed to the promotional message augmentation system **113**, such as the email subscriber / recipient systems **101** and **103**.

[0050] As shown in FIG. 3, the profile may include various fields of information about the senders, such as age **305** and vocation **307**. The profile may include different or additional fields of profile information, such as one or more of the fields discussed above in connection with the email address book record illustrated in FIG. 2. The information that is contained within the sender profile database **131** may be obtained from senders that subscribe to the services that are provided by the promotional message augmentation system **113**, such as the email senders/recipients systems **101** and **103**. This may be done at the time they subscribe to the service or at any other time. At the time of subscribing, all or portions of the custom software **121** may be downloaded and, in certain cases, installed.

[0051] Various inducements may be provided to prospective subscribers to encourage them to subscribe to the promotional message augmentation system **113**. These inducements may include the free or reduced-charge usage of the email server **145** for incoming and/or outgoing emails, spam blocking, cash, discounts, reward points redeemable for cash, products, services, and/or the right to participate in a lottery.

[0052] FIG. 4 illustrates one embodiment of the recipient profile database **133** illustrated in FIG. 1. The recipient profile database **133** may be configured to store a profile **401** of each of a plurality of potential email recipients **403** to whom email may be sent by subscribers using the email server **145**. The recipient profile database **133** may contain any of the types of profile fields that were discussed above in connection with the sender profile database **131**. As will be explained in more detail below, the information in the recipient profile database **133** may be obtained from subscribers to the promotional message augmentation system **113** or developed or augmented from email promotional links that are clicked by recipients of emails containing promotional messages.

[0053] Fig. 5 illustrates one embodiment of the promotional message database **135** illustrated in FIG. 1. As shown in Fig. 5, the promotional message database **135** may include a series of promotional messages **501**, each with a profile **503** of preferred recipients of the promotional message. Again, any type of profile information may be used, such as one or more of the profile fields that were discussed above in connection with the email address book record illustrated in FIG. 2. Unlike the profiles contained in the sender profile database **131** and the recipient profile database **133**, however, ranges of values or multiple values may be stored in connection with each type of profile. As shown in FIG. 5, for example, the range of 30-40 may be stored in connection with the age field **505**, while the values programmer and teacher may be stored in connection with the vocation field **507**.

[0054] The promotional messages that are contained within the promotional message database **135**, as well as the profiles that are associated with each, may be supplied by one or more advertisers. Each promotional message may consist of text, HTML code, graphics, links, video or any other format of information, as well as any combination of these. The message may be configured to be imbedded in and/or or attached to an email. Each message may contain content intended to promote a product or service or anything else, such as a political candidate. Each message may in addition or instead contain any other type of content.

[0055] The promotional message database **135** may include additional fields of information, such as information identifying the advertisers that provided each

promotional message, the number of times each promotional message has been embedded in an email in accordance with a process that will be explained below, and/or the number of times a link in an embedded promotional message has been clicked by recipients of that message, also in accordance with a process that will be explained below. Advertisers that have provided promotional messages may be given selected access to the promotional message database **135** to obtain statistical information that has been stored about the use of each promotional message that they have placed, as well as other types of related reports.

[0056] FIG. 6 illustrates one embodiment of the sender database **137** illustrated in FIG. 1. The sender database **137** may track the number of emails from each subscriber that the promotional message augmentation system **113** has modified in accordance with a process that will be described below. As shown in FIG. 6, the sender database **137** may include a sender field **601** identifying the sender and a count field **603** identifying the number of emails from that sender that have been modified by the promotional message augmentation system **113**. Other fields may be used, such as an email address, street address, and/or telephone number of the sender.

[0057] FIG. 7 illustrates one embodiment of the recipient database **139** illustrated in FIG. 1. The recipient database **139** may contain information about the promotional links in email messages that recipients of those messages click. As shown in FIG. 7, the recipient database **139** may include fields such as a recipient field **701** identifying the recipient and a clicked link **703** field identifying a link that the recipient has clicked. Other fields may be provided, such as a field identifying the email address, street address, and/or telephone number of the recipient, as well as a field identifying the number of times each recipient has clicked each link.

[0058] The sender database **137** may be combined with the sender profile database **131** or may be maintained separately. Similarly, the recipient database **139** may be combined with the recipient profile database **133** or may be maintained separately.

[0059] A test website **149** may be included. As will be explained in more detail below, the test website **149** may be used to administer a test to email senders that are not listed in either the approved sender database **125** or the blocked sender database **127**.

[0060] Examples of processes that may be performed by the illustrative components discussed above and/or by other components will now be described.

[0061] FIG. 8 illustrates one embodiment of a targeted email process. An outgoing email from a subscriber to the promotional message augmentation system **113**, such as from the email sender/recipient system **101**, may be received by the promotional message augmentation system **113**, as reflected by a Receive Outgoing Email block **801**. To facilitate this, the email client **119** in the email sender/recipient system **101** may be configured to deliver outgoing emails to the email server component **145** in the promotional message augmentation system **113**.

[0062] Upon receipt, the processing system **141** in the promotional message augmentation system **113** may examine the email for the purpose of identifying its sender. The processing system **141** may then access the sender profile database **131** for the purpose of locating the profile of the sender, as reflected by a Locate Sender Profile block **803**.

[0063] The processing system **141** may then access the promotional message database **135** for the purpose of locating one or more promotional messages that bear a profile or a profile range that is appropriate for the located sender profile, such as a profile that matches the located sender's profile or a profile that is similar to the located sender's profile. This is reflected in a Locate Matching Promotional Message block **805**. Matching scores may be computed and the promotional message or messages with the best score(s) may be selected. Other matching criteria may be employed.

[0064] The appropriate promotional message or messages that are located may then be added to the sender's email, as reflected by an Add Promotional Message to Email block **807**. If more than one appropriate promotional message is located, only one, some or all of these located promotional messages may be added to the sender's email. If certain appropriate messages are located, but not included in the sender's email, a round-robin system may be implemented to ensure that all promotional messages that are appropriate for a particular profile are ultimately included within one or more outgoing emails. Data relating to the round-robin system may be stored in the promotional message database **135** or elsewhere.

[0065] Each promotional message may be inserted in the sender's email at any location, such as at the bottom of the email, in the middle of the email or at the beginning of the email. It may also or instead be associated with the email as an attachment.

[0066] The augmented email may then delivered back into the Internet **111** for delivery to the recipient that is identified in the email, as reflected by a Deliver Augmented Email block **809**. The sender database **137** may then be updated to increment the count of the number of emails of the sender that the promotional message augmentation system **113** has augmented, as reflected by a Credit Sender block **811**. The fact that a particular promotional message was added to an outgoing email and/or the number of times it was added may be stored in the promotional message database **135** or elsewhere and later made available to the advertiser that requested the promotional message.

[0067] The success of the process illustrated in FIG. 8 may be based on the assumption that a sender often communicates with recipients having profiles similar to the sender's. In this way, profile targets set by advertisers may often be achieved or substantially achieved by the process illustrated in FIG. 8, even when no profile information about a recipient is known.

[0068] In some cases, a single email may designate several recipients. In this instance, steps **807**, **809** and **811** in the process illustrated in FIG. 8 may be performed for each recipient. If a round-robin system is being implement, step **805** may be repeated for the purpose of locating, attaching and delivering the different matching promotional messages in the round-robin.

[0069] FIG. 9 illustrates another embodiment of a targeted email process. As explained above, each subscriber, such as the email sender/recipient system **101**, may maintain an email address database, such as the email address database **123**, that contains profile information about persons to whom the email sender/recipient system may send emails. Information from each subscriber's email address database may be delivered to the promotional message augmentation system **113** and stored in its recipient profile database **133**. This delivery may occur at the time the subscriber signs up for the service. It may also or instead occur at later times and may be initiated

either manually or automatically by the email sender/recipient system **101**, by the promotional message augmentation system **113**, and/or by any other means.

[0070] The receipt of one such recipient profile from one such sender, such as from the email sender/recipient system **101**, is referenced in FIG. 9 as a Receive Recipient Profile From Sender #1 block. The recipient profile information that has been received may be stored in the recipient profile database **133**, as reflected by a Store Recipient Profile block **903**.

[0071] At some later time, the promotional message augmentation system **113** may receive an outgoing email from a different subscriber, such as the email sender/recipient **103**, as reflected in a Receive Outgoing Email From Sender No. 2 block **905**.

[0072] The designated recipient in the email may then be determined by the processing system **141**. The profile of this designated recipient may then be located in the recipient profile database **133**, as reflected in a Locate Recipient Profile block **907**. The step is much the same as the Locate Sender Profile block **803** in FIG. 8, except that the look-up is performed in the recipient profile database **133** for the purpose of locating the profile of the recipient, rather than in the sender profile database **131** for the purpose of locating the profile of the sender.

[0073] In many cases, the matching profile that is returned from the recipient profile database **133** will not be a profile that was supplied by the sender of the email message (e.g., Sender No. 2 in this example), but rather one that was provided by a different subscriber (e.g., Sender No. 1 in this example). By merging the recipient profiles that are received from several different subscribers in a single recipient profile database **133**, cross-fertilization of this type can occur.

[0074] The remaining steps in the process illustrated in FIG. 9, namely a Locate Matching Promotional Message block **909**, an Add Promotional Message block **911**, a Deliver Augmented Email block **913** and a Credit Sender block **915**, may be implemented by the same or similar steps as were discussed above in connection with the same-named steps in FIG. 8.

[0075] One difference between the process shown in FIG. 8 and the process shown in FIG. 9 is that messages are matched to the profile of the sender in FIG. 8, while they are matched to the profile of the recipient in FIG. 9. The process described in FIG. 9 has the capacity to share recipient profile information among multiple subscribers.

[0076] When a single email message designate several recipients, the steps **907**, **909**, **911**, **913** and **915** may be performed separately for each designated recipient.

[0077] The processing system **141** in the promotional message augmentation system **113**, including the custom software **147**, may be configured to implement either or both of the processes set forth in FIGS. 8 and 9. If it is configured to implement only the process set forth in FIG. 8, the recipient profile database **133** may not be needed. Conversely, if it is configured to implement only the process set forth in FIG. 9, the sender profile database **131** may not be needed.

[0078] When the processing system **141** is configured to implement both the processes of FIG. 8 and FIG. 9, an algorithm may be included in the processing system **141** that determines whether to use the sender profile, the recipient profile, and/or a combination of both profiles for the purpose of locating the appropriate promotional message(s) that are to be added to the email. In one embodiment, the profile of the recipient may be used first if it is available from the recipient profile database **133**. If it is not, the sender profile from the sender profile database **131** may be used instead. A combination of the sender and recipient profiles may be used if both are available.

[0079] FIG. 10 illustrates one embodiment of a promotional accounting process. This process may be used in connection with the promotional message augmentation system **113** shown in FIG. 1.

[0080] As indicated above, one or more of the promotional messages that are added to outgoing email messages may include links, such as links to promotional websites. The recipients of these messages, in turn, may click these links and visit their targets, such as the promotional websites. A report that a particular link was clicked may be received by the promotional message augmentation system **113**, as reflected by a Receive Report of Clicked Promotional Link block **1001**. This report may include information identifying the recipient, the sender that sent the message containing the

link, and/or the actual link that was clicked or a code for it. Information in the report may then be stored. For example, the link that the recipient clicked may be stored in the recipient database **139**, as illustrated by the example shown in FIG. 7. This is reflected by a Store Link and Recipient Database block **1003**. Alternately, a code for the link may be stored.

[0081] In this way, the links that a particular recipient clicks can be tracked by the promotional message augmentation system **113**. This provides a means for giving credit to the sender of the email message for the clicked link. This facilitates making an accounting for clicked links in connection with the advertiser that provided the promotional message that contained the clicked link.

[0082] As should be apparent to those skilled in the art, there are a broad variety of techniques that may be used to facilitate the delivery of such reports to the promotional message augmentation system **113**. One such approach is to include a unique code with each embedded link that identifies the sender and/or the recipient of the message. The target to where the link points, such as a website, may be configured to read this unique code and to deliver it to the promotional message augmentation system **113**. The target may process the codes, such as to tally the number of clicked links that originated from the promotional message and augmentation system **101**. It may also or instead decode the code. It may send the tally and/or decoded information to the promotional message and augmentation system **101**, with or without the unique code.

[0083] FIG. 11 illustrates one embodiment of an automated recipient profile development process. This process may be used in connection with the promotional message augmentation system **113**.

[0084] Like step **1001** in FIG. 10, a report of each promotional link clicked by a recipient may be received by the promotional message augmentation system **113**, as reflected in a Receive Report of Clicked Promotional Link block **1101**. This report may identify the recipient. It may identify the link that the recipient clicked. It may also or instead include information from which this information can be determined. The information in the report may then be used by the processing system **141** to develop a profile about the recipient and to store that developed profile in the recipient profile

database **133**, as reflected by an Update Recipient Profile Based On Report block **1103**. If a profile of the recipient was already contained within the recipient profile database **133**, the information from the report may instead be used to fine tune that profile, as also reflected by the Update Recipient Profile Based On Report block **1103**. The information needed to generate or update the recipient's profile may be based on the profile information that was stored in the promotional message database **135** in association with the promotional message in which the clicked link was embedded. Additional fields of information may be included in the promotional message database **135** to facilitate or augment this function.

[0085] As indicated above, one way of inducing email senders to subscribe to the promotional message augmentation system **113** is to offer them a spam blocking system and/or service for free or for a reduced price. FIG. 12 illustrates one embodiment of a two-tier email filtering process that may be included in such an offer.

[0086] An email destined for a subscriber, such as the email sender/recipient system **101**, may be received by the email server **145**, as reflected by a Receive Email block **1201**. A check may be made to determine whether the sender of the email is listed in the approved sender database **125**, as reflected by a Sender in Approved Sender Database? decision block **1205**. This check may be made by the processing system **141** accessing the approved sender database **125** through the processing system **115**. Alternatively, the email may be downloaded from the email server **145** by the processing system **115** and the processing system **115** may determine whether the sender is in the approved sender database **125**.

[0087] If the sender is listed in the approved sender database **125**, the email may be delivered to the recipient, as reflected in a Deliver Email To Recipient block **1203**. This may be accomplished by the processing system **141** or, in the alternative embodiment, by the processing system **115**.

[0088] On the other hand, if the sender is not listed in the approved sender database **125**, a check may be made to determine whether the sender is listed in the blocked sender database **127**, as reflected by a Sender In Blocked Sender Database? decision block **1207**. Again, this may be performed by either the processing system **141** or the

processing system **115**. The check of the blocked sender database may instead be performed before the check of the approved sender database.

[0089] If the sender is listed in the blocked sender database **127**, the email may be blocked from reaching the recipient, such as by deleting the email, as reflected by a Block or Redirect Email block **1209**. The email may instead be redirected, such as by placing it in a special folder or other area segregated from the recipient's normal emails.

[0090] If the sender is not listed in either the approved sender database or the blocked sender database, a message may be sent to the sender directing the sender to take a test, as reflected by a Direct Sender To Take Test block **1211**. Such a message could be sent to the sender at the email address provided by the sender in his email. It could instead be sent to the sender by other means. The message may be sent by the processing system **141** or, in the alternative embodiment, the processing system **117**.

[0091] The test may be configured to test whether the email was sent by an automated system or by an individual. An example of such a configuration is to direct the sender to a website, such as the test website **149** shown in FIG. 1. The processing system **115** or **139** may accomplish this by automatically replying to the email with a message to the sender that includes a link to the test website **149** and an advisory that his message has been placed on hold until the sender clicks the link and follows the instructions at the target website. The embedded link may be customized to include a code that uniquely identifies the sender.

[0092] During the sender's visit to the test website **149**, the test website **149** may present a test to the sender.

[0093] FIG. 13 illustrates one embodiment of the web page test that may be presented by the test website **149**. As illustrated in FIG. 13, a web page **1301** may include a randomly selected word or set of characters **1303** placed against a partially-obscuring background **1305**. Although a word known to the English language is shown in the example, arrangements of characters that have no meaning may be used instead. Similarly, although a cross-hatch pattern has been shown, different patterns

or even backgrounds with no patterns may be used instead. The color of the characters **1303** and the background **1305** may be the same, similar, or different. The characters **1303** and the background **1305** may be selected so as to ensure that the characters **1303** can be read by an individual, but not readily by a machine implementing a pattern-recognition algorithm that does not consume significant time to process.

[0094] The web page **1301** may include a message **1307** that directs the sender to enter the characters that he sees on the screen in an entry area **1309**. If the sender complies with this instruction and the entry matches the characters **1303**, the sender may be deemed to have passed the test. On the other hand, if the sender does not enter the characters or if the entry does not match, the sender may be deemed to have failed the test. The passage or failure of the test is reflected by a Sender Passed Test? decision block **1213**.

[0095] The test website **149** may communicate the results of the test or information about the entry made by the sender to the processing system **141**, the processing system **115** and/or elsewhere. If the test website merely communicates information about the entry that the sender made, the determination as to whether the sender passes the test may be made by the processing system **141**, the processing system **115** or elsewhere. The communication from the test website **149** may include information identifying the sender. This information may be the code that may have been included with the link clicked by the sender to get to the test website **149**, it may have been entered by the sender while visiting the test website **149**, or may come from any other source.

[0096] If the sender fails the test, the email may be blocked or redirected as reflected by a Block Or Redirect Email block **1215**. If it is blocked, the email may be deleted. If it is redirected, it may be placed in a segregated area for the recipient. A message may also or instead be sent to the sender alerting the sender to the test failure. The recipient may be given the opportunity to add the sender to the approved sender database **125** and/or to the blocked sender database **127**. The system may instead be configured to automatically list a sender that fails the test in the blocked sender database **127**.

[0097] If the sender passes the test, on the other hand, the recipient may be notified of the passage, as reflected by a Notify Recipient of New Sender block **1217**. The system may instead or in addition place the email from the sender in the in-box of the recipient or in a segregated area.

[0098] Before delivering the email to any box, the system may instead ask the recipient to approve the new sender, as reflected by a New Sender Approved By Recipient? decision block **1219**. If the recipient declines, the email message may be blocked or redirected, as reflected by the Block Or Redirect Email block **1215**. If blocked, it may be deleted. If redirected, it may be placed in a segregated area. The recipient may be asked whether to place the disapproved sender in the blocked sender database **127**. The system may alternatively be configured to automatically perform this operation once the recipient disapproves the sender.

[0099] If the recipient approves the sender, on the other hand, the sender may be placed in the approved sender database **125**, as reflected by a Place Sender In Approved Sender Database block **1221**. The email may be delivered to the in-box of the recipient, as reflected by a Deliver Email To Recipient block **1223**.

[00100] As should now be apparent, the process illustrated in FIG. 12 may vary in sequence and in the steps that are taken in many ways. This includes wide variation in the required involvement of the recipient in the process and in the management of emails from senders that are listed in the blocked sender database **127**, that failed the test, or that were disapproved by the recipient.

[00101] The process in FIG. 12 may advantageously be used in connection with the targeted email promotion system with two-tier filtering illustrated in FIG. 1. Alternatively, this process may be used as a stand alone process, separate from the system illustrated in FIG. 1.

[00102] The involvement of advertisers may vary widely. For example, the promotional message augmentation system **113** may be configured to bill advertisers based on the number of times a promotional message is appended to an email, the number of times that a link within an appended promotional message is clicked by a recipient, and/or actual purchases or other actions of the recipients. This tracking

information may be stored in the promotional message database **135** and/or in a different database.

[00103] An embodiment of a targeted email promotion system with or without two-tier filtering may be licensed to organizations, such as businesses, that wish to append their own promotional messages to emails that are sent by their members or employees. The two-tier filtering system may separately be licensed to organizations and/or individuals.

[00104] Compensation may be provided for the referral of subscribers. The compensation may be based on the number of subscribers that are referred, the number of emails that the subscribers send, the number of embedded promotional links that are clicked, the purchases that targeted recipients make, or by a combination of these approaches.

[00105] In short, only examples of systems, components, processes and steps have been provided. Protection is to be limited solely to the claims that now follow.